

Application No. 10/784,517

REMARKS

The Examiner has objected to claim 7 as being a substantial duplicate of claim 6. Claim 7 has been cancelled.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being obvious over Hosier ('626) in view of Ohtagaki. In the above Amendment, claim 1 has been amended to include the limitations of claims 3 and 4, which have been cancelled. With regard to claims 3-7 as originally filed, the rejection notes that the primary reference, Hosier, fails to disclose that the filtering layers are disposed over the planar layer. The rejection then points to Figure 1d and column 6, lines 1-6 of Ohtagaki to show filtering layers disposed over the planar layer.

With reference to Fig. 3 as filed for illustrative purposes, the claimed invention recites an integrated circuit wafer that defines both a photosite and a groove 70, the groove defining at least one edge of a chip area, i.e., the edge of a chip when the wafer is cut into chips. A planar layer such as 72 extends over groove 70 and forms a planar surface. A filtering layer such as 74 is supported by the planar layer 72; the filtering layer 74 is useful for its optical properties, such as color, with regard to the photosites that are on the bulk of the chip.

The primary reference, Hosier, which was cited in the Specification as filed, and which shares inventors with the present application, deals with a problem very similar to that addressed by the claimed invention: maintaining the integrity of a color filter layer during dicing of a wafer into chips. Looking at Figure 4A of Hosier, the problem is set forth: when cutting the wafer into chips, such as with a dicing blade, the filtering layer 22 is ripped away from the photosite 14.

To address a substantially similar problem, the claimed invention recites the planar layer, such as 72 in Fig. 3 as filed, which extends over and into groove 70 yet supports a filtering layer 74 (which is analogous in function to the layer 22 in Hosier). The presence of the planar layer 72 inhibits ripping of the filtering layer 74 when the wafer is diced through groove 70, such as along line 71. Significantly, to provide this advantage, the planar layer 72 must extend *into the*

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groove 70 through which the wafer is cut. Also, as recited in claim 1, the filtering layer itself extends over the groove 70.

The secondary reference, Ohtagaki, is cited to show the use of a planar layer with a filtering layer. Indeed, the cited Figure show filtering layers 4, 5, 6 disposed on planarization layer 2a. However, there is no disclosure or suggestion in Ohtagaki of why planarization layer 2a should extend to *grooves* through which the chip is cut from a wafer; indeed, there is no disclosure of why the planarization layer 2a or the filtering layers 4, 5, 6 should exist anywhere *but* over the photosensors on chip 1. There appears to be no teaching of "dicing" or "cutting" chips *anywhere* in Ohtagaka. A person of skill in the art would not look to Ohtagaka for any teaching relevant to maintaining the integrity of filtering layers through dicing or cutting process.

In overview, the claimed invention posits a light-transmissive planar layer which in effect supports a filtering layer, but which also extends into the groove through which the wafer is cut, thereby protecting the integrity of the filtering layer during dicing. Hosier does not teach a planar layer; Ohtagaki does not teach a planar layer extending into a dicing groove, or why placing such a planar layer there would be desirable. Therefore, the references cannot be combined to show the invention of claim 1 or its dependent claims as obvious.

The claims are therefore in condition for allowance.

No additional fee is believed to be required for this amendment; however, the undersigned Xerox Corporation attorney authorizes the charging of any necessary fees, other than the issue fee, to Xerox Corporation Deposit Account No. 24-0025.

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In the event the Examiner considers personal contact advantageous to the disposition of this case, he is hereby requested to call the undersigned attorney at (585) 423-3811, Rochester, NY.

Respectfully submitted,



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